REMARKS

In accordance with the foregoing, claims 1-2, 5, 7, 11, 16-17, 22-23, 30, 33 and 34 have been amended. Claims 1-34 are pending and under consideration.

CLIAM OBJECTIONS:

At page2 of the Office Action, claims 2, 7 and 17 are objected to being informalities.

The corresponding claims have been amended to overcome the objection.

In view of the above, it is respectfully submitted that the objection is overcome.

REJECTION UNDER 35 U.S.C. § 112:

At pages 2 and 3 of the Office Action, the Examiner rejects claims 1-34 under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Regarding claim 7, the Office Action rejects "paper sensor" as recited in claim 7 is unclear.

By way of review, even though the sensor 120 does not detect a paper directly but it detects the presence of the paper indirectly. Therefore, it is respectfully submitted that is appropriate to refer a sensor 102 as a "paper sensor".

Claims 1-2, 7, 11, 16-17, 22-23, 30, 33 and 34 have been amended for clarifying of the present invention.

As noted above, it is respectfully submitted that the rejection should be overcome.

REJECTION UNDER 35 U.S.C. § 102:

Claims 1, 5, and 6, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Applicant's admitted prior art in Fig. 1 and the background section of the instant application.

Claim 5 has been amended for clarifying of the present invention.

The Office Action set forth that background of the invention discloses that "the paper sensor (15) generates a signal upon sensing the actuator (including 13) pivot."

By way of review, the background of the present invention merely discloses "However, the conventional paper detecting apparatus uses two identical sensors each requiring a separate actuator, and a slot on the duplex printing paper path that allows the actuators to

operate, thereby increasing material costs. In addition, since such a paper detecting apparatus employs a lot of parts, the number of assembling processes increases and therefore productivity declines. Moreover, since two sensors are used, it is highly likely to have malfunction of the sensors and accordingly, the product can be assessed as being unreliable."(see paragraph [0020]).

Therefore, the background of the present invention discloses two actuators and two sensors are used to detect paper in the paper feed cassette or is being fed along the duplex printing paper path but fails to disclose "a paper sensor disposed next to the actuator that senses movement of the actuator and generates a signal, wherein the actuator pivots in a predetermined angle when no paper is stacked in the paper feed cassette or when paper is being fed along the duplex printing paper path, and the paper sensor generates a signal upon sensing the actuator pivot." as recited in claim 1.

Accordingly, claim 1 patentably distinguishes over the background of the present invention and is submitted to be allowable.

Claims 5 and 6, which depend from claim 1, are also submitted to be allowable for at least the same reasons as claim 1, as well as for the additional recitations therein.

Claims 1, 5, and 6, are rejected under 35 U.S.C. 102(e) as being anticipated by Kwon (U.S. Patent No. 6,292,636).

The outstanding Office Action sets forth that Kwon discloses that an actuator (including 20, 30, and 40) pivotably disposed above a paper feed cassette (110) and below a duplex printing path, that is moved by a paper.

By way of review, Kwon discloses that "In addition, in an electrophotographic processor, there are provided various sensors for sensing respective sections, and an exemplary sensor among these sensors is the paper detecting apparatus. As the paper detecting apparatus, there are the sensor for sensing whether paper has been loaded within the paper cassette, and the sensor for sensing the paper transport state. Here, the sensor for sensing the paper loading senses whether there is paper loaded on the paper support and outputs this data to a controller with a predetermined signal, and if it is determined that there is no paper loaded, the controller outputs error and warning messages so that the user may provide paper." (col. 3, lines 44-57).

As noted above, Kwon discloses "the sensor for sensing the paper loading senses whether there is paper loaded on the paper support and outputs this data to a controller with a predetermined signal" but fails to disclose "wherein the actuator pivots in a predetermined angle when no paper is stacked in the paper feed cassette or when paper is being fed along the

duplex printing paper path, and the paper sensor generates a signal upon sensing the actuator pivot." as recited in claim 1. It appears to be no teaching of "whether the paper is being fed along the duplex printing paper path" as recited in claim 1 is disclosed in Kwon.

As such, it is respectfully submitted that claim 1 is allowable.

Regarding claim 5, the Office Action sets forth that Kwon discloses that FIG. 3 shows a lower surface of element (10) that is a stopper limiting pivoting space of the actuator (including 20, 30 and 40).

Claim 5 has been amended for clarifying of the present invention.

In view of the above, it is respectfully submitted that the rejection is overcome.

Additionally, Applicant respectfully submits that claim 6, which ultimately depend from claim 1 should also now be allowable.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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